

EB-2022-0295 : 1 : Ted Weaver

COST CLAIM NUMBER
1795

SUBMISSION DEADLINE DATE
December 13, 2023

CLAIM STATUS
Approved by Finance

EB#
EB-2022-0295: Initiatives: Policy Dev, CDM:
Ontario Energy Board

OTHER EB#S

PHASE #*
1

INTERVENOR
Weaver, Ted; +()720-272-8100
weaver_t@mindspring.com

INTERVENOR COMPANY*
First Tracks Consulting Service,
Inc., Nederland: Corporation

INTERVENOR TYPE
Full Registrant

HST RATE ONTARIO
13.00

EXCHANGE RATE

COUNTRY
US

HST NUMBER
752556308RT0001

LATE SUBMISSION ALLOWED
Yes

EXTENSION DEADLINE DATE
December 15, 2023

PARTICIPANTS

New	Non-Filing Participant First, Last Name	Filing Participant	Total (\$)	Total Hours	Participant Claim Status
No	,	Weaver, Ted; +()720-272-8100 weaver_t@mindspring.com	24,518.21	65.75	Submitted

ATTACHMENTS

Attachment	Document Type	Import Message
FTC EB-2022-0295 Cost Claim 121420231048.pdf		

TOTAL LEGAL/CONSULTANT/OTHER FEES
21,697.50

TOTAL DISBURSEMENTS
0.00

TOTAL HST
2,820.71

TOTAL CLAIM
24,518.21

TOTAL AMOUNT AWARDED

TOTAL HOURS CLAIMED
65.75

TOTAL HOURS DISALLOWED

REASON FOR
DISALLOWANCE

REASON FOR
DISALLOWANCE - 2

REASON FOR
DISALLOWANCE - 3

MAKE CHEQUE PAYABLE TO
First Tracks Consulting Service, Inc.

SEND PAYMENT TO ADDRESS
PO Box 1484
Nederland, CO, USA, 80466

ATTENTION

SUBMIT SECTION

I am a representative of the Party. I have examined all of the documentation in support of this cost claim. The costs incurred and time spent are directly related to the Party's participation in the OEB Process referred to above.

This cost claim does not include any costs for work done, or time spent, by a person that is an employee or officer of the Party as described in section 6.05 and 6.09 of the OEB's Practice Direction on Cost Awards.

The information (fees and disbursements) filed in this cost claim is complete and accurate and in accordance with the OEB's Practice Direction for Cost Awards and Appendix A, the Cost Awards Tariff.

SUBMITTED BY
Edward M. Weaver

DATE SUBMITTED
December 14, 2023

CASEEB-2022-0295: Initiatives: Policy
Dev, CDM: Ontario Energy Board**COST CLAIM**EB-2022-0295 : 1 : Ted
Weaver**INTERVENOR NAME**Weaver, Ted;
+()720-272-8100
weaver_t@mindspring.com**PARTICIPANT****CLAIM STATUS**
Submitted**FILING PARTICIPANT**Weaver, Ted; +()720-272-8100
weaver_t@mindspring.com**NEW
PARTICIPANT**

No

**NON-FILING
PARTICIPANT F. NAME****NON-FILING
PARTICIPANT L. NAME****SERVICE PROVIDER TYPE***

Consultant

YEAR CALLED TO BAR***COMPLETED YEARS
PRACTICING/YEARS OF
RELEVANT EXPERIENCE***

44

HOURLY RATE

330

HST RATE CHARGED*

13.00

**CV STATUS (FOR
CONSULTANT/ANALYST)**

CV Attached

LAST CV DATE

December 13, 2023

**OVERRIDE
HOURLY RATE**

Yes

HST NUMBER

752556308RT0001

HEARINGS

No

CONSULTATIONS

Yes

DISBURSEMENTS

No

CONSULTATION

Consultation		Consultations		Consultations		Consultations		
Hours		Subtotal (\$)		Total Tax (\$)		Total (\$)		
65.75		21,697.50		2,820.71		24,518.21		
Description		Maximum Hours	Hours	Hourly Rate	Sub Total	HST Rate	HST	Total
1	April 11/23 - SAG Meeting #1	5.00	5.00	330	1,650.00	13.00	214.50	1,864.50
2	April 26/23 - SAG Meeting #2	5.00	4.00	330	1,320.00	13.00	171.60	1,491.60
3	May 12/23 - SAG Meeting #3	3.75	3.75	330	1,237.50	13.00	160.88	1,398.38
4	May 19/23 - SAG Sub-Committee Meeting: Industrial Measure Characterization #1	1.50	1.50	330	495.00	13.00	64.35	559.35
5	May 19/23 - SAG Sub-Committee Meeting: Residential Measure Characterization #1	2.25		330		13.00		
6	May 23/23 - Review and Comment: Residential Sub-Committee - Preliminary	1.00	1.00	330	330.00	13.00	42.90	372.90
7	May 24/23 - SAG Meeting #4	4.13	4.00	330	1,320.00	13.00	171.60	1,491.60
8	May 26/23 - SAG Sub-Committee Meeting: Commercial Measure Characterization	1.50		330		13.00		
9	May 26/23 - Review and Comment: Commercial Sub-Committee - Measure List	1.00	1.00	330	330.00	13.00	42.90	372.90
10	May 26/23 - Review and Comment: Industrial Sub-Committee - Measure List and Definitions (1st Round)	1.00	1.00	330	330.00	13.00	42.90	372.90
11	June 2/23 - SAG Sub-Committee Meeting: Residential Measure Characterization #2	1.50		330		13.00		
12	June 2/23 - SAG Sub-Committee Meeting: Industrial Measure Characterization #2	1.50	1.50	330	495.00	13.00	64.35	559.35
13	June 7/23 - Review and Comment: Residential Sub-Committee - Measure List and Definitions (1st Round)	1.00	1.00	330	330.00	13.00	42.90	372.90
14	June 8/23 - SAG Meeting #5	3.75	3.75	330	1,237.50	13.00	160.88	1,398.38
15	June 9/23 - SAG Sub-Committee Meeting: Commercial Measure Characterization #2	1.50		330		13.00		
16	June 13/23 - Review and Comment: Commercial Sub-Committee - Measure List and Definitions (2nd Round)	0.50	0.50	330	165.00	13.00	21.45	186.45
17	June 13/23 - Review and Comment: Industrial Sub-Committee - Measure List and Definitions (2nd Round)	0.50	0.50	330	165.00	13.00	21.45	186.45
18	June 16/23 - SAG Sub-Committee Meeting: Residential Measure Characterization #3	1.50		330		13.00		
19	June 16/23 - SAG Sub-Committee Meeting: Industrial Measure Characterization #3	1.50	1.50	330	495.00	13.00	64.35	559.35
20	June 22/23 - SAG Meeting #6	3.75	3.75	330	1,237.50	13.00	160.88	1,398.38
21	June 22/23 - Review and Comment: Commercial Sub-Committee - Measure List and Definitions (3rd Round)	0.50	0.50	330	165.00	13.00	21.45	186.45
22	June 23/23 - SAG Sub-Committee Meeting: Commercial Measure Characterization #3	1.50		330		13.00		

	<u>Description</u>	<u>Maximum Hours</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Sub Total</u>	<u>HST Rate</u>	<u>HST</u>	<u>Total</u>
23	Jul 6/23 - Review and Comment: Residential Sub-Committee - Measure List and Definitions (2nd Round)	1.00		330		13.00		
24	Jul 6/23 - Review and Comment: Commercial Sub-Committee - Measure List and Definitions (4th Round)	0.50		330		13.00		
25	Jul 7/23 - Review/Comment: Industrial Sub-Committee - Measure Savings and Costs Batch #1 (1st Round)	1.00	1.00	330	330.00	13.00	42.90	372.90
26	Jul 14/23 - SAG Sub-Committee Meeting: Industrial Savings Example	0.50	0.50	330	165.00	13.00	21.45	186.45
27	Jul 19/23 - Review and Comment: Industrial Sub-Committee - Measure Savings Example	0.50	0.50	330	165.00	13.00	21.45	186.45
28	Jul 24/23 - Review/Comment: Residential Sub-Committee - Measure Savings & Costs Batch #1 (1st Round)	1.00		330		13.00		
29	Jul 26/23 - SAG Meeting #7	3.00	3.00	330	990.00	13.00	128.70	1,118.70
30	Aug 1/23 - Review/Comment: Residential Sub-Committee - Measure Savings & Costs Batch #2 (1st Round)	1.00		330		13.00		
31	Aug 2/23 - Review/Comment: Commercial Sub-Committee - Measure List & Definitions (5th Round)	1.00		330		13.00		
32	Aug 14/23 - Review/Comment: Commercial Sub-Committee - Measure Savings & Costs Batch #1 (1st Round)	1.00		330		13.00		
33	Aug 15/23 - Review and Comment: APS Incentive Approach	1.00	1.00	330	330.00	13.00	42.90	372.90
34	Aug 17/23 - SAG Meeting #8	3.75	3.75	330	1,237.50	13.00	160.88	1,398.38
35	Aug 23/23 - Review and Comment: APS Base Year Disaggregation & Reference Forecast	1.00	1.00	330	330.00	13.00	42.90	372.90
36	Aug 23/23: Review/Comment: Industrial Sub-Committee - Measure Savings & Costs Batch #1 (2nd Round)	0.50	0.50	330	165.00	13.00	21.45	186.45
37	Aug 29/23: Review/Comment: Commercial Sub-Committee - Measure Savings and Costs Batch #1 (2nd Round)	1.00		330		13.00		
38	Sept 5/23: Review and Comment: Industrial Sub-Committee - Measure Savings & Costs Batch #2	1.00	1.00	330	330.00	13.00	42.90	372.90
39	Sept 9/23: Review and Comment: APS Avoided Costs	1.00	1.00	330	330.00	13.00	42.90	372.90
40	Sept 14/23: SAG Meeting #9	3.75	3.75	330	1,237.50	13.00	160.88	1,398.38
41	Sept 21/23: Review/Comment: Residential Sub-Committee - Measure Savings & Costs Batch #2 (2nd Round)	1.50		330		13.00		
42	Sept 28/23: SAG Meeting #10	3.75	3.75	330	1,237.50	13.00	160.88	1,398.38
43	Oct 12/23: SAG Meeting #11	1.50	1.50	330	495.00	13.00	64.35	559.35
44	Oct 18/23: Review and Comment: DSM Framework Considerations	1.50	1.50	330	495.00	13.00	64.35	559.35
45	Oct 23/23: Review/Comment:SAG Sub-Committee: Industrial:Savings,Applicability,Tech & Econ Potential	2.50	2.50	330	825.00	13.00	107.25	932.25
46	Oct 25/23: SAG Sub-Committee Meeting: Measure Characterization Applicability Tutorial	2.25		330		13.00		
47	Oct 26/23: SAG Meeting #12	3.75	3.75	330	1,237.50	13.00	160.88	1,398.38

	<u>Description</u>	<u>Maximum Hours</u>	<u>Hours</u>	<u>Hourly Rate</u>	<u>Sub Total</u>	<u>HST Rate</u>	<u>HST</u>	<u>Total</u>
48	Oct 27/23: Review and Comment: DSM Framework Considerations	1.50	1.50	330	495.00	13.00	64.35	559.35
49	Appendix B: Jul 10/23: EAC Meeting #1	1.50		330		13.00		
50	Appendix B: Jun 12/23: Review and Comment - EGI Industrial Process Evaluation Report	1.50		330		13.00		
51	Appendix B: Jun 20/23: Review and Comment - 2022 Annual Verification Work Plan	1.00		330		13.00		
52	Appendix B: Aug 3/23: EAC Meeting #2	1.50		330		13.00		
53	Appendix B: Aug 4/23: Review and Comment - FR Scope of Work #1	2.00		330		13.00		
54	Appendix B: Aug 25/23: Review and Comment - 2023-2025 EMV Plan	2.00		330		13.00		
55	Appendix B: Sept 13/23: EAC Meeting #3	2.25		330		13.00		
56	Appendix B: Sept 22/23: EAC Meeting #4	3.00		330		13.00		
57	Appendix B: Sept 27/23: Review and Comment - TRM Workplan	1.00		330		13.00		
58	Appendix B: Sept 29/23: Review and Comment - CPSV Scope of Work	1.50		330		13.00		
59	Appendix B: Oct 11/23: Review and Comment - Interview Guides, FR Scope of Work #2	2.00		330		13.00		
60	Appendix B: Oct 13/23: Review and Comment - FR Sample Design, Advance Letter	1.00		330		13.00		
61	Appendix B: Oct 24/23: EAC Meeting #5	2.25		330		13.00		
Total Legal/Consultant Fees			65.75		21,697.50		.820.71	24,518.21

Attachments

<u>Attachment</u>	<u>Document Type</u>	<u>Import Message</u>
OEB Invoice 0423-1023.pdf	Time Docket and Invoice	
Ted Weaver Resume 020623.pdf	CV	

Hearings, Consultations, Disbursements Attachments

<u>Attachment</u>	<u>Document Type</u>	<u>Claim Type</u>	<u>Import Message</u>
OEB Invoice 0423-1023.pdf	Time Docket and Invoice	Consultations	
Ted Weaver Resume 020623.pdf	CV	Consultations	

FIRST TRACKS CONSULTING SERVICE, INC.
PO Box 1484
Nederland, CO 80466

December 13, 2023

Invoice Number:
Client:

573
 Ontario Energy Board

First Tracks Project Number:
First Tracks Project:
Client Project Manager:
Client Project Number:

191
 DSM Stakeholder Advisory Group
 Josh Wasylyk

Billing Period:

4/1/2023 to 10/31/2023

Activity #	Activity	Labor Hours	Hourly Rate	Labor Cost	GST Rate	GST Cost	Total
1	SAG Meeting #1	5.00	\$330.00	\$ 1,650.00	13%	\$ 214.50	\$ 1,864.50
2	SAG Meeting #2	4.00	\$330.00	\$ 1,320.00	13%	\$ 171.60	\$ 1,491.60
3	SAG Meeting #3	3.75	\$330.00	\$ 1,237.50	13%	\$ 160.88	\$ 1,398.38
4	SAG Sub-Committee Meeting: Industrial Measure Characterization #1	1.50	\$330.00	\$ 495.00	13%	\$ 64.35	\$ 559.35
5	SAG Sub-Committee Meeting: Residential Measure Characterization #1	0.00	\$330.00	\$ -	13%	\$ -	\$ -
6	Review and Comment: Residential Sub-Committee - Preliminary Measure List	1.00	\$330.00	\$ 330.00	13%	\$ 42.90	\$ 372.90
7	SAG Meeting #4	4.00	\$330.00	\$ 1,320.00	13%	\$ 171.60	\$ 1,491.60
8	SAG Sub-Committee Meeting: Commercial Measure Characterization #1	0.00	\$330.00	\$ -	13%	\$ -	\$ -
9	Review and Comment: Commercial Sub-Committee - Measure List and Definitions (First Round)	1.00	\$330.00	\$ 330.00	13%	\$ 42.90	\$ 372.90
10	Review and Comment: Industrial Sub-Committee - Measure List and Definitions (First Round)	1.00	\$330.00	\$ 330.00	13%	\$ 42.90	\$ 372.90
11	SAG Sub-Committee Meeting: Residential Measure Characterization #2	0.00	\$330.00	\$ -	13%	\$ -	\$ -
12	SAG Sub-Committee Meeting: Industrial Measure Characterization #2	1.50	\$330.00	\$ 495.00	13%	\$ 64.35	\$ 559.35
13	Review and Comment: Residential Sub-Committee - Measure List and Definitions (First Round)	1.00	\$330.00	\$ 330.00	13%	\$ 42.90	\$ 372.90
14	SAG Meeting #5	3.75	\$330.00	\$ 1,237.50	13%	\$ 160.88	\$ 1,398.38
15	SAG Sub-Committee Meeting: Commercial Measure Characterization #2	0.00	\$330.00	\$ -	13%	\$ -	\$ -
16	Review and Comment: Commercial Sub-Committee - Measure List and Definitions (Second Round)	0.50	\$330.00	\$ 165.00	13%	\$ 21.45	\$ 186.45
17	Review and Comment: Industrial Sub-Committee - Measure List and Definitions (Second Round)	0.50	\$330.00	\$ 165.00	13%	\$ 21.45	\$ 186.45
18	SAG Sub-Committee Meeting: Residential Measure Characterization #3	0.00	\$330.00	\$ -	13%	\$ -	\$ -
19	SAG Sub-Committee Meeting: Industrial Measure Characterization #3	1.50	\$330.00	\$ 495.00	13%	\$ 64.35	\$ 559.35
20	SAG Meeting #6	3.75	\$330.00	\$ 1,237.50	13%	\$ 160.88	\$ 1,398.38
21	Review and Comment: Commercial Sub-Committee - Measure List and Definitions (Third Round)	0.50	\$330.00	\$ 165.00	13%	\$ 21.45	\$ 186.45
22	SAG Sub-Committee Meeting: Commercial Measure Characterization #3	0.00	\$330.00	\$ -	13%	\$ -	\$ -
23	Review and Comment: Residential Sub-Committee - Measure List and Definitions (Second Round)	0.00	\$330.00	\$ -	13%	\$ -	\$ -
24	Review and Comment: Commercial Sub-Committee - Measure List and Definitions (Fourth Round)	0.00	\$330.00	\$ -	13%	\$ -	\$ -
25	Review and Comment: Industrial Sub-Committee - Measure Savings and Costs Batch #1 (First Round)	1.00	\$330.00	\$ 330.00	13%	\$ 42.90	\$ 372.90
26	SAG Sub-Committee Meeting: Industrial Savings Example	0.50	\$330.00	\$ 165.00	13%	\$ 21.45	\$ 186.45
27	Review and Comment: Industrial Sub-Committee - Measure Savings Example	0.50	\$330.00	\$ 165.00	13%	\$ 21.45	\$ 186.45
28	Review and Comment: Residential Sub-Committee - Measure Savings and Costs Batch #1 (First Round)	0.00	\$330.00	\$ -	13%	\$ -	\$ -
29	SAG Meeting #7	3.00	\$330.00	\$ 990.00	13%	\$ 128.70	\$ 1,118.70
30	Review and Comment: Residential Sub-Committee - Measure Savings and Costs Batch #2 (First Round)	0.00	\$330.00	\$ -	13%	\$ -	\$ -
31	Review and Comment: Commercial Sub-Committee - Measure List and Definitions (Fifth Round)	0.00	\$330.00	\$ -	13%	\$ -	\$ -
32	Review and Comment: Commercial Sub-Committee - Measure Savings and Costs Batch #1 (First Round)	0.00	\$330.00	\$ -	13%	\$ -	\$ -
33	Review and Comment: APS Incentive Approach	1.00	\$330.00	\$ 330.00	13%	\$ 42.90	\$ 372.90
34	SAG Meeting #8	3.75	\$330.00	\$ 1,237.50	13%	\$ 160.88	\$ 1,398.38
35	Review and Comment: APS Base Year Disaggregation & Reference Forecast	1.00	\$330.00	\$ 330.00	13%	\$ 42.90	\$ 372.90
36	Review and Comment: Industrial Sub-Committee - Measure Savings and Costs Batch #1 (Second Round)	0.50	\$330.00	\$ 165.00	13%	\$ 21.45	\$ 186.45
37	Review and Comment: Commercial Sub-Committee - Measure Savings and Costs Batch #1 (Second Round)	0.00	\$330.00	\$ -	13%	\$ -	\$ -
38	Review and Comment: Industrial Sub-Committee - Measure Savings and Costs Batch #2	1.00	\$330.00	\$ 330.00	13%	\$ 42.90	\$ 372.90
39	Review and Comment: APS Avoided Costs	1.00	\$330.00	\$ 330.00	13%	\$ 42.90	\$ 372.90
40	SAG Meeting #9	3.75	\$330.00	\$ 1,237.50	13%	\$ 160.88	\$ 1,398.38
41	Review and Comment: Residential Sub-Committee - Measure Savings and Costs Batch #2 (Second Round)	0.00	\$330.00	\$ -	13%	\$ -	\$ -
42	SAG Meeting #10	3.75	\$330.00	\$ 1,237.50	13%	\$ 160.88	\$ 1,398.38
43	SAG Meeting #11	1.50	\$330.00	\$ 495.00	13%	\$ 64.35	\$ 559.35
44	Review and Comment: DSM Framework Considerations	1.50	\$330.00	\$ 495.00	13%	\$ 64.35	\$ 559.35
45	Review and Comment: SAG Sub-Committee: Industrial: Savings, Applicability, Tech and Econ Potential	2.50	\$330.00	\$ 825.00	13%	\$ 107.25	\$ 932.25
46	SAG Sub-Committee Meeting: Measure Characterization Applicability Tutorial	0.00	\$330.00	\$ -	13%	\$ -	\$ -
47	SAG Meeting #12	3.75	\$330.00	\$ 1,237.50	13%	\$ 160.88	\$ 1,398.38
48	Review and Comment: DSM Framework Considerations	1.50	\$330.00	\$ 495.00	13%	\$ 64.35	\$ 559.35
Total		65.75		\$21,697.50			\$24,518.18

EDWARD (TED) WEAVER

Ted Weaver has been a leader in sustainable energy for more than 40 years. He has helped utilities and energy service firms develop and manage over \$6 billion (\$US) of energy efficiency services and over 2 GW of electric generation. He has led and participated in dozens of public engagement processes to create consensus around energy policies, portfolio budgets, and energy resource selections. He has completed projects in over 40 states and provinces throughout North America and appeared as an expert more than 20 times before utility commissions.

Mr. Weaver is also a leader in clean tech innovation. He was the founding CEO of a methane monitoring firm; is a partner in a smart EV charging firm; has worked with multiple cleantech startup clients; and has helped utility clients create and manage innovation functions. He was a founder of the Colorado Cleantech Community networking group and has worked as a judge and mentor in multiple cleantech accelerators.

Mr. Weaver spent much of his professional career in Colorado and relocated to British Columbia in 2021.

PROFESSIONAL EXPERIENCE

First Tracks Consulting Service, Inc.

Nederland, CO/Nelson, BC

President

2000 - present

Founder of management consulting firm serving clients in the utility and energy technology industries. Specializing in strategic consulting services, including long-term planning, business-cycle planning, market analysis, techno-economic analysis, procurement, organizational development, regulatory support, and stakeholder engagement. Developed dozens of business plans, integrated resource plans, and energy efficiency plans, covering hundreds of energy efficiency programs, renewable energy systems, and new energy technologies.

LongPath Technologies

Boulder, CO

Chief Executive Officer

2017 - 2018

Partner

2017-present

Co-founder of technology startup providing air quality services to the oil and gas industry. Company leverages Nobel-Prize winning laser technology developed at the University of Colorado and the National Institute of Standards and Technology to provide autonomous, wide-area methane monitoring using a service company business model. Serving customers throughout the natural gas value chain, including gas producers, gas processors, gas storage fields, LNG terminals, and other markets. Responsible for strategic direction, intellectual property, investor relations, business development, and strategic partnerships, as well as day-to-day operations.

Rolling Energy Resources

Boulder, CO

Partner

2021-present

Minority partner in technology startup providing smart EV charging services.

Rocky Mountain Clean Tech Open

Denver, CO

Boulder Regional Director

2014 - 2019

Judging Committee

Clean Tech Open is the world's largest cleantech business accelerator, targeting technologies in renewable energy, energy distribution and storage, energy efficiency, green buildings, information technology, transportation, agriculture, waste, and water.

Colorado Clean Tech Community

Denver, CO

Board Member

2014 - 2018

Co-founder of membership organization providing networking and education to the Colorado clean tech community, including entrepreneurs, investors, service providers, government agencies, and universities.

PG&E Energy Services, Inc.**San Francisco, CA/Boulder, CO*****Director, Strategy & Planning (and other titles)*****1997 - 2000**

Reported directly to the CEO of retail service company selling electricity, natural gas, and other energy services to customers throughout the United States, with a focus on Fortune 1000 companies with industrial and multisite footprints. Responsible for business planning, commodity market strategy, strategic alliances, and risk management.

Barakat & Chamberlin, Inc.**Oakland, CA/Boulder, CO*****Principal/Partner (and other titles)*****1988 - 1997**

Managed multimillion dollar practice within international management consulting firm providing sustainable energy services to utility and government clients. Specialized in business planning, new business creation, energy efficiency planning, integrated resource planning, and power supply procurement.

Burlington Electric Department**Burlington, VT*****Demand-Side Planner*****1987 - 1988**

Developed first integrated resource plan for municipal electric utility. Managed rate department.

Vermont Department of Public Service**Montpelier, VT*****Electricity Planner*****1985 - 1987**

Responsible for statewide energy planning. Primary author of 1997 State Electricity Plan.

Energy Systems Research Group (Now Tellus Institute)**Boston, MA*****Research Assistant*****1979 - 1985**

Contributed to projects involving resource planning, renewable energy, energy efficiency, and litigation support.

NONPROFIT AND BOARD EXPERIENCE**Wild Bear Nature Center****Nederland, CO*****Board Member, Treasurer, President*****1997-2007**

Nature center and nonprofit organization providing outdoor education to people of all ages in Boulder County Colorado.

International Mountain Explorers Connection**Boulder, CO*****Board Member, Treasurer*****2000-2003**

Nonprofit organization supporting ethical mountain trekking culture by promoting social, economic and environmental responsibility in the Himalaya and Kilimanjaro mountain regions.

EDUCATIONAL RECORD

Massachusetts Institute of Technology, Bachelor of Science, 1984

Graduate courses in economics and statistics, University of Vermont, 1986-87

SELECTED PROJECT EXPERIENCE**LongPath Technologies, Methane Monitoring Startup, 2014-Present**

At various stages as founder, employee, consultant, and partner, helped created methane monitoring company now valued at over \$60M (US\$). Developed initial business model and business plan. Led creation of business entity. Developed initial intellectual property strategy. Developed initial revenue-producing customers. Ongoing role as minority partner and in business development.

Nicor Gas, Energy Efficiency Portfolio Management, 2010-Present

Helped gas utility client develop and manage energy efficiency portfolio delivering \$600M in services including equipment rebates, household weatherization, new construction upgrades, comprehensive business upgrades, and online platforms. Key tasks included managing regulatory approvals from the Illinois Commerce Commission; participation in statewide stakeholder advisory group; managing procurement of service contractors; specification of information systems; and development of strategic planning, business planning, emerging technology, evaluation, and continuous improvement functions.

Eversource, Hydrogen Power-to-Gas Preliminary Scoping Analysis, 2021

Preliminary analysis of the potential for carbon-free methane supply using renewable electrolyzer and carbon capture technologies.

Enbridge Gas, Energy Efficiency Business Model, 2022

Expert testimony to Ontario Energy Board outlining business model to provide fair, transparent compensation and incentives to Enbridge shareholders for delivering energy efficiency services that lower sales from core natural gas delivery business.

ComEd, Independent Bid Evaluator, 2012-2021

Acted as Independent Bid Evaluator to select contractors to select over \$350M of innovative energy efficiency programs. Assessed program delivery proposals ranging from residential rebates to large industrial retrofits, including 2021 procurement focusing on Industrial Systems and Retro-commissioning offerings. Developed requests for proposals. Provided independent, transparent evaluation of submitted bids. Managed stakeholder input process. Managed regulatory filings with Illinois Commerce Commission.

City of Boulder Colorado, Municipalization Strategy, 2012-2014

Provided strategic advice to city staff responsible for accelerating electricity decarbonization by creating new municipal electric utility through purchase of Xcel Energy distribution assets.

MidAmerican Energy, Energy Efficiency Portfolio Management, 2003-2009

Helped combined electric/gas utility client develop and manage energy efficiency portfolio delivering \$700M in services including equipment rebates, household weatherization, new construction upgrades, and comprehensive business upgrades. Key tasks included managing regulatory approvals from the Iowa Utilities Board and Illinois Commerce Commission; managing stakeholder input processes; managing procurement of service contractors; specification of information systems; and development of strategic planning, business planning, and evaluation functions.

MidAmerican Energy, Industrial Customer Engagement, 2006-2009

Provided management systems audits to MidAmerican's largest industrial customers to help customers build management systems to identify and implement energy efficiency and other sustainable energy strategies.

Texaco-Ovonics, 2001-2003

Market strategy for battery and hydrogen storage divisions, including market sizing of battery and hydrogen markets for transportation, power supply, buildings, and other markets.

New York Power Authority, Energy Procurement, 2001

Managed procurement process to select comprehensive portfolio of renewable, fossil, and financial resources necessary to replace Indian Point nuclear units.

SELECTED FIRST TRACKS AND BARAKAT & CHAMBERLIN CLIENTS

Alberta Power	Iowa Utilities Association
Ameren Illinois	IPS Electric
Ameren Missouri	Lower Colorado River Authority
American Electric Power	Los Angeles Department of Water & Power
Arkansas Public Service Commission	Midwest Gas
Arizona Public Service	Midwest Power
Atmos Energy	MidAmerican Energy
BC Hydro	National Grid
Boulder County (CO)	National Institutes of Standards and Technology
Burlington Electric Department	Nature Conservancy
Canadian Electrical Association	Newfoundland & Labrador Hydro
Cinergy	New York Power Authority

Chevron Energy Solutions
City Public Service (San Antonio, TX)
City Utilities (Springfield, MO)
City of Boulder, CO
Colorado Governor's Energy Office
Colorado Natural Gas
Colorado Public Utilities Commission
Colorado Springs Utilities
Commonwealth Edison
Consumers Energy
Delmarva Power
Detroit Edison
Electric Power Research Institute
Enbridge
Energy Conversion Devices
E Source
Eversource
Georgia Power
Hawaii Department of Business, Economic
Development & Tourism
Indiana & Michigan Power
Iowa Power

Nicor Gas
North Shore Gas
Oklahoma Gas & Electric
Pacific Gas & Electric
Pennsylvania Public Utilities Commission
Peoples Gas
PSI/Energy
Public Service Company of Colorado
Public Service Company of New Mexico
Public Service Company of Oklahoma
PSEG
Salt River Project
SourceGas
Southwestern Electric Power Company
Southwestern Public Service
Southern California Edison
Southern California Gas
Texaco Ovonic Battery Systems
Texaco Ovonic Hydrogen Systems
Trane
University of Colorado
Vectren Retail

APPEARANCES BEFORE PUBLIC UTILITIES COMMISSIONS

Colorado Public Utilities Commission

Docket 91A-481EG (Direct Testimony)

Hawaii Public Utilities Commission

Docket 94-0206 (Direct Testimony)

Docket 7257 (Direct Testimony)

Illinois Commerce Commission

Docket 18-1688 Affidavit/Report

Docket 18-1135 Affidavit/RFP

Docket 13-0549 (Direct Testimony)

Docket 10-0568 (Direct Testimony; Rebuttal Testimony)

Docket 08-0108 (Direct Testimony)

Iowa Utilities Board

Docket EEP-08-2 (Direct Testimony; Rebuttal Testimony)

Docket EEP-03-1 (Direct Testimony)

Docket EEP-95-3 (Direct Testimony)

Docket ECR-94-1 (Direct Testimony)

Docket ECR-93-2 (Direct Testimony; Rebuttal Testimony)

Docket EEP-91-8/92-1 (Direct Testimony; Rebuttal Testimony)

Docket EEP-91-3 (Direct Testimony)

NOPR EEP-90-1 (Appearance)

Docket GCU-88-1 (Supplemental Rebuttal Testimony)

Ontario Energy Board

File EB-2021-0002 (Direct Evidence)

Vermont Public Service Board

Docket 5270 (Direct Testimony)

Docket 5177 (Direct Testimony)

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Attribution Issues, the Net Versus Gross Savings Debate. E Source Focus Report EDRP-F-35. Boulder, CO. May 30, 2010.

“Where are CFLs Going; Where are They Taking Energy-Efficiency Programs?” *Proceedings of the AESP 20th Annual Energy Services Conference and Expo*. Tuscon, AZ. February 2010.

“Energy Efficiency Goals: Are They Attainable?” *ACEEE’s 5th National Conference on Energy Efficiency as a Resource*. Chicago, IL. September 2009.

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